ROLE OF GAMMA GLUTAMYL TRANSFERASE LEVELS IN PREDICTION OF CARDIO VASCULAR RISK IN PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

BACKGROUND : Non – alcoholic fatty liver disease (NAFLD) is one among those multiple conditions causing derangement of liver function tests.As it is very well understood that NAFLD has a correlation with artherosclerosis without much influence from some of those essential risk factors like smoking , systolic blood pressure , total cholesterol values and age factors which are usually independent risk factors. **AIM** : To confine patients into disease criteria with the help of radiological grading of fatty liver and estimating cardiovascular risk score with the help of Framingham heart risk score in those patients with elevated gamma glutamyl transferase levels. **MATERIALS AND METHODS** : This is a type of retrospective study conducted in Govt. Stanley medical college hospital measured in both out patients and in patients from the departments of general medicine and medical gasteroenterology in those who had radiological evidence of fatty liver ruling out other causes of any liver pre-existing liver abnormalities and estimating their levels of gamma glutamyl transferase levels using standardised testing protocols.

RESULTS : In this study which was studied for a period of six months from May 2017 – October 2017, it was observed that gamma glutamyl transferase levels was elevated in those patients with NAFLD and their cardiovascular risk and its outcome was calculated for the next 10 years calculated as mild , moderate and severe risk accordingly.The mean GGT levels were estimated to be closely similar to both males and females of about 56 -60 IU. **CONCLUSION** : Those patients who found to have fatty liver and confining within the criteria of NAFLD , when evaluated with their liver function tests it was found that gamma glutamyl transferase levels are elevated significantly .It has also proved that those with elevated GGT levels were independent of other risk factors like total cholesterol , smoking , systolic blood pressure whether treated or untreated Severity also depends upon the grading of fatty liver and its association with GGT levels. It also further showed that patients with persistently elevated gamma glutamyl transferase levels correlated with higher risk of cardiovascular risk score when compared accordingly using the traditional Framingham cardiovascular risk score when compared with differences among Sex , Age factors and their future risk when graded as per severity Index. Inspite of being included in liver function panel , Gamma Glutamyl Transferase is an enzyme primarily of hepatobiliary in origin .It serves as an index of future cardiovascular risk as it is also elevated in extra hepatic conditions including the cardiovascular and metabolic components.

KEYWORDS :

NON DIABETIC – NAFLD – GAMMA GLUTAMYL TRANSFERASE – CARDIOVASCULAR RISK – FRAMINGHAM SCORE